UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER
RASHID, DAVID

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/806,454	TABATA ET AL.
	Examiner	**Art Unit**	
	DAVID P. RASHID	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _13 August 2008_.

2a)☐ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-32_ is/are pending in the application.

    4a) Of the above claim(s) _8-23 and 26-32_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-7, 24 and 25_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Table of Contents

Amendments

[1]   This office action is responsive to <u>Preliminary Amendment Under 37 C.F.R. § 1.115</u>

received on August 13, 2008. Claims 1-7 and 24-25 remain pending; claims 8-23 and 26-32

withdrawn.

Election/Restrictions

[2]   Applicant's election of claims 1-7 and 24-25 in the reply filed on August 13, 2008 is

acknowledged. Because applicant did not distinctly and specifically point out the supposed

errors in the restriction requirement, the election has been treated as an election **without** traverse

See M.P.E.P. § 818.03(a).

Claim 8-23 and 26-32 are withdrawn from further consideration pursuant to 37 C.F.R. §

1.142(b) as being drawn to a nonelected invention/species, there being no allowable generic or

linking claim.

Specification

[3]   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Rejections - 35 U.S.C. § 112

[4]   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and **6** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 4 recites the limitation "the compressed" in line 2. There is insufficient antecedent

basis for this limitation in the claim.

Claim 6 recites the limitation "the mode instructing means" in lines 5-6. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 U.S.C. § 101

[5]   **Claims 1-7** and **24-25** are rejected under 35 U.S.C. § 101 because the claimed invention

is directed to non-statutory subject matter. All "section" elements (*e.g.,* "a first compressing

section"; emphasis added) of claims 1-7 and 24-25 are positively supported by <u>software/program</u>

<u>enablement on a computer which is non-statutory</u>. *See, e.g.* fig. 1 (depicting the inherency of

software/program required from scanner item 1001 to printer item 1007 and hard disk drive item

1009, the same software/program required to perform the apparatus elements of claims 1-7 and

24-25).

Claim Rejections - 35 U.S.C. § 102

[6]   The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[7]   **Claims 1** is rejected under 35 U.S.C. 102(b) as being anticipated by The JPEG 2000 Still Image Compression, IEEE Signal Processing Magazine, 9/2001, pp. 36-58 (*hereinafter* "Skodras et al.").

Regarding **claim 1**, *Skodras et al.* discloses an apparatus (the computer to perform fig. 2, p. 38) for image processing (fig. 2, p. 38) comprising:

a first compressing section ("[c]ompressed image data" at fig. 2 before "[s]tore or [t]ransmit", p. 38) which compresses each block of an image into first compressed data (the compressed data after "[c]ompressed image data" at fig. 2 before "[s]tore or [t]ransmit", p. 38);

a first code converting section which converts the first compressed data into second compressed data so that each block of the second compressed data has a code length equal to or different from that of each block of the first code length ("[c]ompressed image data" at fig. 2 during "[s]tore or [t]ransmit", p. 38; *i.e.*, the compressed image data either transmitted or stored a first time will have a equal code length before and after using "lossless compression" at p. 38; the compressed image data can be stored or transmitted indefinitely before reconstructing the image data);

a second code converting section which converts the second compressed data into third compressed data so that each block of the third compressed data has a code length equal to that

of each block of the first code length ("[c]ompressed image data" at fig. 2 during "[s]tore or

[t]ransmit", p. 38; *i.e.*, the compressed image data either transmitted or stored a second time will

have a equal code length before and after using "lossless compression" at p. 38; the compressed

image data can be stored or transmitted indefinitely before reconstructing the image data); and

a decoding section ("[r]econstructed image data" at fig. 2) which decodes the third

compressed data.

Claim Rejections - 35 U.S.C. § 103

[8]   The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

[9]   **Claims 1-7,** and **24-25** are rejected under 35 U.S.C. § 103(a) as being unpatentable over

U.S. Patent No. 6,426,809 (issued Jul. 30, 2002, hereinafter "Hayashi et al.") in view of U.S.

Patent No. 5,786,906 (issued Jul. 28, 1998, hereinafter "Shishizuka").

Regarding **claim 1**, while *Hayashi et al.* discloses an apparatus (the computer carrying

out fig. 1) for image processing [*intended use; see M.P.E.P. s. 2016(II)(C)*] comprising:

a first compressing section (fig. 1, item 12) which compresses each block of an image

(image input into fig. 1, item 1) into first compressed data (the compressed data of fig. 1, item

12);

a first code converting section (fig. 1, item 13) which converts the first compressed data

(the compressed data of fig. 1, item 12) into second compressed data (the compressed data of fig.

1, item 13) so that each block of the second compressed data has a code length equal to or

different from that of each block of the first compressed data; and

a second code converting section ((i) fig. 1, item 15; or (ii) fig. 1, item 6 if item 4

determines the image is color because it will pull the whole image from item 72; 6:27-30) which

converts the second compressed data (the compressed data of fig. 1, item 13) into third

compressed data ((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1,

item 6) so that each block of the third compressed data has a code length equal to that of each

block of the first compressed data, *Hayashi et al.* does not disclose a decoding section which

decodes the third compressed data.

Shishizuka teaches a decoding section (fig. 1, item 6) which decodes encoded data (5:15-

21).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Hayashi et al.* to include decoding section which decodes encoded

data as taught by *Shishizuka*; and for the third compressed data of *Hayashi et al.* to be the

decoded data of *Shishizuka* "to provide a method of processing an image, capable of accurately

judging an input image as a color or monochrome image" (*Shishizuka*, 1:50-52) and "to provide

an image processing apparatus having various editing functions." (*Shishizuka*, 2:65-67).

Regarding **claim 2**, *Hayashi et al.* in view of *Shishizuka* does not disclose wherein the

decoding section also decodes the first compressed data.

Shishizuka teaches a decoding section (fig. 1, item 6) which decodes encoded data (5:15-

21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus of *Hayashi et al.* to include decoding section which decodes encoded data as taught by *Shishizuka*; and for the first compressed data of *Hayashi et al.* to be the decoded data of *Shishizuka* "to provide a method of processing an image, capable of accurately judging an input image as a color or monochrome image" (*Shishizuka*, 1:50-52) and "to provide an image processing apparatus having various editing functions." (*Shishizuka*, 2:65-67).

Regarding **claim 3**, *Hayashi et al.* discloses an apparatus for image processing according to claim 1, further comprising a color determining section (fig. 1, item 4) which determines whether the image is colored or monochromatic,

wherein the first code converting section converts the first compressed data into the second compressed data in accordance with the result of the determination by the color determining section ("in accordance" in that they are all part of the same system, i.e. item 12 converting to item 13 "in accordance" with the same system using item 4 to transmit what was intended at item 7) so that each block of the second compressed data has a code length equal to or different from that of each block of the first compressed data, and

the first code converting section converts the second compressed data into the third compressed data in accordance with the result of the determination by the color determining section ("in accordance" in that they are all part of the same system, i.e. item 13 converting to either item 72 or item 73 (see above) "in accordance" with the same system using item 4 to transmit what was intended at item 7) so that each block of the third compressed data has a code length equal to that of each block of the second compressed data.

Regarding **claim 4**, *Hayashi et al.* in view of *Shishizuka* discloses wherein the decoding

section (*Shishizuka*; fig. 1, item 6) executes decoding the compressed data ((i) the compressed

data of fig. 1, item 14; or (ii) the compressed data of fig. 1, item 6) in a code format (binary code

format is inherent) of the first compressed data (the compressed data of fig. 1, item 12), and

the second code converting section (i) fig. 1, item 15; or (ii) fig. 1, item 6 if item 4

determines the image is color because it will pull the whole image from item 72; 6:27-30)

converts the second compressed data (the compressed data of fig. 1, item 13) into the third

compressed data ((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1,

item 6) so that each block of the third compressed data ((i) the compressed data of fig. 1, item

14; or (ii) the compressed data of fig. 1, item 6) has a code length (the code lengths are equal)

and a code format (binary code format is inherent) equal to those of each block of the first

compressed data (the compressed data of fig. 1, item 12).

Regarding **claim 5**, *Hayashi et al.* in view of *Shishizuka* do not disclose wherein if the

third compressed data has a code format different from that of the first compressed data, the

decoding section decodes the third compressed data by converting the code format of the third

compressed data into a code format of the first compressed data.

Shishizuka teaches wherein if a later compressed data (the format at transmission at fig. 1,

item 5) has a code format different from that of original compressed data (monochrome image

within RGB format at fig. 1, item 1), a decoding section (fig. 1, items 6,7) decodes the later

compressed data (the format at transmission at fig. 1, item 5) by converting the code format of

the compressed data into a code format of the original compressed data ("image reproduction

using black is performed for the monochrome image" at 5:19-21).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Hayashi et al.* in view of *Shishizuka* to include wherein if

compressed data has a code format different from that of other compressed data, a decoding

section decodes the compressed data by converting the code format of the compressed data into a

code format of the other compressed data as taught by *Shishizuka et al.* and for the first and third

compressed data of *Hayashi et al.* in view of *Shishizuka* to be the original compressed data and

later compressed data as taught by *Shishizuka* "to provide a method of processing an image,

capable of accurately judging an input image as a color or monochrome image" (*Shishizuka*,

1:50-52) and "to provide an image processing apparatus having various editing functions."

(*Shishizuka*, 2:65-67).

Regarding **claim 6**, *Hayashi et al.* discloses further comprising system control section

(fig. 1, item 14) for instructing on a mode <u>for image processing</u> [*intended use; see M.P.E.P. s.

2016(II)(C)*],

wherein the first code converting section (fig. 1, item 13) converts the first compressed

data (the compressed data of fig. 1, item 12) into the second compressed data (the compressed

data of fig. 1, item 13) in accordance with the mode instructed on by the mode instructing means

("in accordance" in that they are all part of the same system, i.e. item 12 converting to item 13

"in accordance" with the same system using item 14 to transmit what was intended at item 7) so

that each block of the second compressed data has a code length equal to or different from that of

each block of the first compressed data, and

the first code converting section (fig. 1, item 13) converts the second compressed data

(the compressed data of fig. 1, item 13) into the third compressed data ((i) the compressed data

of fig. 1, item 14; or (ii) the compressed data of fig. 1, item 6) so that each block of the third

compressed data has a code length equal (the code length is equal) to that of each block of the

first compressed data.

Regarding **claim 7**, *Hayashi et al.* in view of *Shishizuka* discloses further comprising a

memory (the memory holding the third compressed data) which stores the third compressed data

((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1, item 6);

a color determining section (fig. 1, item 4) which determines whether the image is

colored or monochromatic; and

system control section (fig. 1, item 14) for instructing on a mode for image processing,

wherein the decoding section (*Shishizuka*; fig. 1, item 6) decodes the third compressed

data ((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1, item 6) read

from the memory (the memory holding the third compressed data),

in accordance with at least either a color determination result produced by the color

determining section (fig. 1, item 4) or the mode instructed on by the system control section (fig.

1, item 14), the first code converting section (fig. 1, item 13) converts the first compressed data

(the compressed data of fig. 1, item 12) into the second compressed data (the compressed data of

fig. 1, item 13) so that each block of the second compressed data (the compressed data of fig. 1,

item 13) has a code length equal to or different (it is going to be either equal or different) from

that of each block of the first compressed data (the compressed data of fig. 1, item 12), and

the memory (the memory holding the third compressed data) stores plural types of third

compressed data ((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1,

item 6) having different color determination results and different pieces of mode instruction

information.

Regarding **claim 24**, while *Hayashi et al.* discloses an apparatus (the computer carrying

out fig. 1) for image processing [*intended use; see M.P.E.P. s. 2016(II)(C)*] comprising:

a compressing section (fig. 1, item 12) which compresses each block of an image (image

input into fig. 1, item 1) into first compressed data (the compressed data of fig. 1, item 12) with a

variable code length; and

a first code converting section (fig. 1, item 13) which converts the first compressed data

(the compressed data of fig. 1, item 12) into second compressed data (the compressed data of fig.

1, item 13) with a fixed code length, *Hayashi et al.* does not disclose a decoding section which

decodes the second compressed data.

Shishizuka teaches a decoding section (fig. 1, item 6) which decodes encoded data (5:15-

21).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made for the apparatus of *Hayashi et al.* to include decoding section which decodes encoded

data as taught by *Shishizuka*; and for the second compressed data of *Hayashi et al.* to be the

decoded data of *Shishizuka* "to provide a method of processing an image, capable of accurately

judging an input image as a color or monochrome image" (*Shishizuka*, 1:50-52) and "to provide

an image processing apparatus having various editing functions." (*Shishizuka*, 2:65-67).

Regarding **claim 25**, while *Hayashi et al.* discloses an apparatus (the computer carrying

out fig. 1) for image processing [*intended use; see M.P.E.P. s. 2016(II)(C)*] comprising:

a compressing section (fig. 1, items 12, 13) which compresses an image into first compressed data (the compressed data of fig. 1, item 12) with a fixed code length and second compressed data (the compressed data of fig. 1, item 13) with a variable code length; and

a first code converting section ((i) fig. 1, item 15; or (ii) fig. 1, item 6 if item 4 determines the image is color because it will pull the whole image from item 72; 6:27-30) which converts the second compressed data (the compressed data of fig. 1, item 13) into third compressed data ((i) the compressed data of fig. 1, item 14; or (ii) the compressed data of fig. 1, item 6) with a fixed code length, *Hayashi et al.* does not disclose a decoding section which decodes the first or third compressed data.

Shishizuka teaches a decoding section (fig. 1, item 6) which decodes encoded data (5:15-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the apparatus of *Hayashi et al.* to include decoding section which decodes encoded data as taught by *Shishizuka*; and for the first or third compressed data of *Hayashi et al.* to be the decoded data of *Shishizuka* "to provide a method of processing an image, capable of accurately judging an input image as a color or monochrome image" (*Shishizuka*, 1:50-52) and "to provide an image processing apparatus having various editing functions." (*Shishizuka*, 2:65-67).

Conclusion

[10]   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 5671319 A; US 5757776 A; US 20010038469 A1; US 6473531 B1; US 6483609 B1; US 20030142376 A1; US 20030152279 A1; US 20030228063 A1.

[11]   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DAVID P. RASHID whose telephone number is (571)270-1578

and fax number (571)270-2578. The examiner can normally be reached Monday - Friday 7:30 -

17:00 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Vikkram Bali can be reached on (571) 272-74155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Rashid/
Examiner, Art Unit 2624

David P Rashid
Examiner
Art Unit 26244

/Vikkram Bali/
Supervisory Patent Examiner, Art Unit 2624